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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/586,775 | 06/05/2000 | Gil Vinitzky | P-2596-US | 7937 |

7590

02/13/2003

Eitan Pearl Latzer & Cohen-Zedek
10 ROCKEFELLER PLAZA
SUITE 1001
NEW YORK, NY 10020

EXAMINER

DO, CHAT C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2124

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/586,775

Applicant(s)

VINITZKY, GIL

Examiner

Chat C. Do

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/8/00; 11/8/02.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1, the recitation "the parity" in line 9 lacks the antecedent basis. Thus, claim 2 is also rejected under the same rationale for being dependent upon the rejected claim 1.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Hancke et al. (U.S. 3,673,399).

Re claim 1, Hancke et al. disclose in Figures 1 and 9 a method for in-place (col. 1 lines 35-40) memory management in a DSP architecture performing a Fast Fourier Transformation upon a sequence of N data points ($N = 32$ in Figure 9) and the sequence numbered from 0 to N-1. The method comprises storing each of data points numbered from 0 to $(N/2)-1$ in a first memory space X (24) and each of data points numbered $N/2$ to N-1 in a second memory space Y (25); for each FFT stage 0 (Pass 1 in Figure 9) data point grouping (0&16, 1&17, 2&18, ..., 15&31) comprising a first data point of data points in first memory space X (0, 1, 2, ..., 15) and a corresponding second data point of data points in second memory space Y (16, 17, 18, 31); determining the parity of a data point memory index (col. 5 lines 10-18) corresponding to first and second data points; storing (Table II in col. 4), if parity is of a first parity value (Memory Location is even), the results of an FFT operation upon first data point at the memory address in first memory space X from which first data point was fetched and the result of an FFT operation upon second data point at the memory address in second memory space Y from which second data point was fetched (PO0 in 24 & PO1 in 25; OP6 in 24 & OP7 in

25 ...); and storing (Table II in col. 4), if parity is of a second parity value (Memory Location is odd), the results of an FFT operation upon first data point at the memory address in second memory space Y from which second data point was fetched and the result of an FFT operation upon second data point at the memory address in first memory space X from which first data point was fetched (data results are swapped while storing such as OP3 in 24 & OP4 in 25, OP5 in 24 & OP6 in 25...).

Re claim 2, Hancke et al. further disclose any FFT stage Z subsequent to stage 0 and each FFT stage Z data point grouping comprising a first data point in first memory space X and a corresponding second data point in second memory space Y, storing the results of an FFT operation upon first data point at the memory address in first memory space X from which first data point was fetched and the results of an FFT operation upon second data point at the memory address in second memory space Y from which second data point was fetched (col. 6 lines 25-39).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 6,356,926 to Andre discloses a device and method for calculating FFT.
- b. U.S. Patent No. 3,871,577 to Avellar et al. disclose a method and apparatus for addressing FFT processor.

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c. U.S. Patent No. 3,662,161 to Bergland et al. disclose a global highly parallel fast Fourier Transform processor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Chat C. Do
Examiner
Art Unit 2124

February 7, 2003


KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100